

Macedonian Ruby – Makedonski Rubin



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Macedonia, the oldest and most authentic ancient country in Europe, legendary fatherland of Filip II of Macedon, his prodigious son Alexander the Great, of Justinian I the Great, Tsar Samoil, Sts. Cyril and Methodius, etc., has far more precious gems to offer than anyone could ever expect. One such unique treasure of nature, which can be found only in this ancient cradle of European civilization, is the Macedonian ruby.



For thousands of years the rubies were the most valuable gemstones in the world, and still it is the preferred gift for lovers. In literature ruby is described as a ‘metaphysical rock of love and wisdom’ with healing effect on the energy center of the heart. When this energy system is balanced, one can feel and give more love. The balance makes one become more humane. Katrina Raphaell, one of the experts of worldwide crystal therapy and healing, said that it has one of the most powerful rays of a crystal in the world which treats the energetic field of the heart: *“The colour of this ruby is really the most important feature. Its transparency is only of secondary importance. Inclusions within a ruby could be said to be its fingerprint, a statement of its individuality and, at the same time, proof of its genuineness and natural origin. The jewel is unique and it is hand-made. The cut is*

essential: only a perfect cut will underline the beauty of this valuable and precious stone in a way befitting the king of gemstones”.

EMPIRICAL FACTS

The pure scientific Mineralogy definition of Ruby is of a precious gemstone, known to be consisted of corundum, in color varieties varying from deep crimson or purple to pale rose. The corundum¹ on its side is extremely hard stone, second only to diamond, made of aluminum oxide, and because of its hardness also used as an abrasive. Ruby² and Sapphire are the two varieties of this extremely hard mineral framed in a solid crystal structure. Furthermore, the corundum (ruby, sapphire, and emery) on the Mohs scale is rated as very hard - **9**. It has excellent toughness and no cleavage (which is a tendency to break when struck). This makes it a great choice for rings and other mountings subject to daily wear. Small pieces of ruby are widely used for the precision and enduring axis-holes for the rotating gears in the clocks and for high precision mechanics. Ruby ranks **9** on the Mohs hardness scale, so it's an effective jewelry stone. Among the natural gems only moissanite and diamond are harder, with diamond having a Mohs hardness of 10.0 and moissanite falling somewhere in between corundum (ruby) and diamond in hardness.

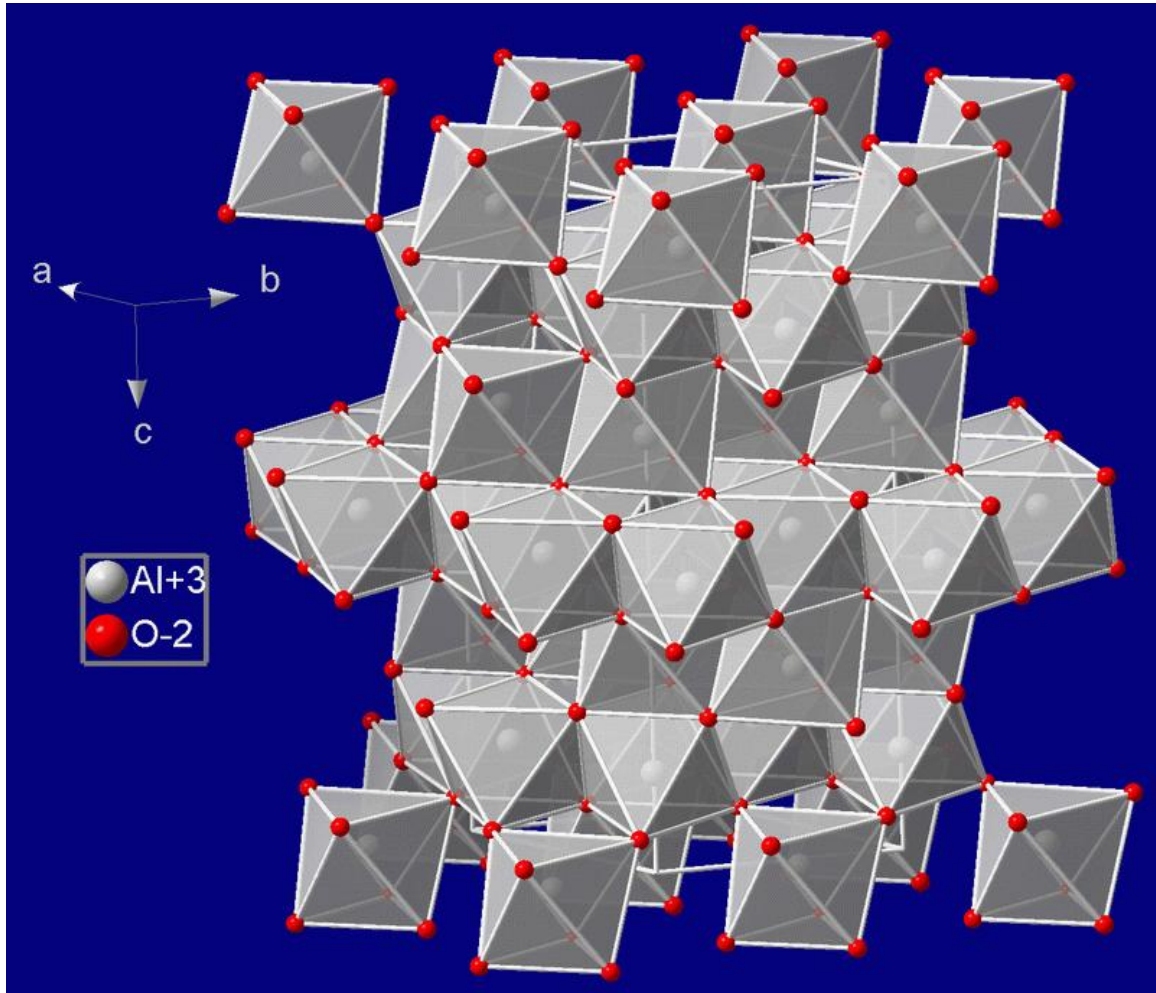


Ruby, sapphire, and pure corundum are α -alumina, the most stable form of Al_2O_3 , in which 3 electrons leave each aluminium ion to join the regular octahedral group of six

¹ From Tamil “*kuruntam*” and Telugu “*kuruvindam*”, Macedonian “*Krvav*”,

² From Medieval Latin *rubinus*, from the base of Latin *rubeus* - ‘red.’

nearby O^{2-} ions; in pure corundum this leaves all of the aluminium ions with a very stable configuration of no unpaired electrons or unfilled energy levels, and the crystal is perfectly colorless. When a chromium atom replaces an occasional aluminium atom, it too loses 3 electrons to become a chromium³⁺ ion to maintain the charge balance of the

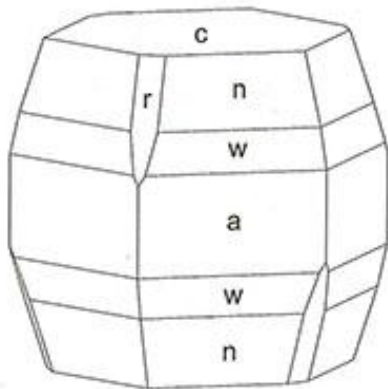


Al_2O_3 crystal. However, the Cr^{3+} ions are larger and have electron orbitals in different directions than the aluminium. The octahedral arrangement of the O^{2-} ions is distorted, and the energy levels of the different orbitals of those Cr^{3+} ions are slightly altered because of the directions to the O^{2-} ions. Those energy differences correspond to absorption in the ultraviolet, violet, and yellow-green regions of the spectrum.

Rubies, as with other gemstones, beside their hardness are graded using criteria known as the four C's, namely Color, Cut, Clarity and Carat weight. Rubies are also evaluated on the basis of their geographic origin. Historically, they have been mined in Thailand, in the Pailin and Samlout District of Cambodia, as well as in Afghanistan, Australia, Brazil, Colombia, India, Namibia, Japan, and Scotland; after the Second World War ruby deposits were found in Madagascar, Mozambique, Nepal, Pakistan, Tajikistan, Tanzania, and Vietnam. And now a local raspberry-pink variety of this beautiful gemstone is arriving to be steadily exploited in Macedonia as well. The Republic of Macedonia is actually the only country in mainland Europe to have naturally occurring rubies. They

can mainly be found in the queries of white marble around the city of Prilep, and there is reason to believe that Macedonian ruby deposits are of significant quantity.

Marbles are characterised by the following minerals: dolomite, calcite, corundum, diaspore, β -zoisite, rutile, fluorite, achroite, pyrite, muscovite, illite, margarite and chlorite (BARIĆ, 1969; ŽORŽ et al., 1991). The Sivec Quarry is the most important deposit of dolomite marble and the main source of corundum crystals (the picture below - typical morphology of corundum crystals from the Prilep marble). However, they can be



Legend:
 pinacoid – $c \{0001\}$
 second order prism – $a \{11\bar{2}0\}$
 positive rhombohedron – $r \{10\bar{1}1\}$
 hexagonal bipyramids – $n \{22\bar{4}3\}$ and $w \{11\bar{2}1\}$.

found also near the quarry and at some other localities (Belovodica and Beloto, both no more than 13 km from Prilep).³ Macedonian rubies have a unique pale-raspberry color, characteristically pink and red colored corundum crystals. Prismatic crystal on the right is



blue colored and is rarely found in Prilep marble (its height is 3.0 cm). The ruby is also included on the Macedonian coat of arms.

³ <http://m.palaminerals.com/prilep>

HISTORY

Throughout history the ruby has held equal place with the emerald in value among gems. It was known to the ancients as “anthrax,” to the Romans as “carbunculus”. It was one of the twelve stones used in the Ephod or sacred breast-plate of the Jewish High Priest. It is interesting to note that according to the Arab historian Abd-er-Rhaman, writing A.D. 829, the sarcophagus of Cheops, the Pharaoh of the Great Pyramid, contained sword which bore in its hilt a fine ruby “as large as a hen’s egg and brilliant as a flame.”



A ruby the size of a pigeon’s egg, once in the Russian regalia, was presented to the Czarina Catherine by Gustave III of Sweden, in 1777. This is the largest ruby in Europe.

In ancient and medieval times the ruby was thought to possess the quality of warning its wearer of the presence of poison by growing dark and cloudy. By the same manifestations it was believed to indicate evil, misfortune, or any danger which threatened its owner.

The ruby was also regarded as a potent charm against sadness and many forms of sin and vice. If the four corners of a house, garden or vineyard were touched with a ruby, they would be preserved from lightning, tempests and worms.

The Burmese believe that the ruby confers invulnerability. To attain this end, however, it is not thought to be sufficient to wear the stone set in a ring, but the gem must be inserted in the flesh and thus become, in a way, a part of the owner’s body. Those who in this way bear about with them a ruby, confidently believe that they cannot be wounded by spear, sword or gun. A somewhat similar idea prevails among the Hindus who believe that the possessor of a fine ruby may live in peace and concord in the midst of his enemies. The power of this protection is supposed to depend upon the degree of perfection of the stone.

The ruby was even used extensively as a cure for the plague, hemorrhages, and to dispel pestilential vapors. It was also used in the treatment of diseases of the eyes and for disordered livers.

Today the Macedonian ruby is attested Macedonian brand, and the demand and overall production of these gems gradually is rising. More and more jewel craft-shops pay due attention to these reaffirmed fruits of the mother earth. Macedonian ruby is worn by many famous persons from the world of film and music. A sample of our ruby has Daryl Hanna and Catherine Deneuve, who were guests at the Manaki Brothers Movie Festival. The Pope in Vatican also has a Macedonian ruby in the the form of cross, as well as a number of statesmen who have visited Macedonia. Mr. Dean 'Deko' Škartov is that enthusiastic extraordinary person that was needed and held responsible for the rediscovery



and overall promotion of this particular variety of ruby found only in Macedonia. Artist by vocation, he is our doyen of rubies, who studied and developed the technology of its processing and combined it with the famous Macedonian filigree. The renown jeweler mr. Škartov opened his first jewel store for the Macedonian and other precious and semiprecious minerals and gemstones back in 2002. In the beginning he mainly promoted the natural crystals and gemstones imported from abroad. Among them he introduced and



promoted the malachite from Africa, jade from South America, Indian opal, lapis lazuli, mountain crystals, turquoises, and many, many other stupendous pearls and marvels of the mother nature, represented both in a crude state, or in a form of beautifully elaborated precious and semi-precious gemstones. Technically, they are all precious stones, there is no stark division between precious and the so-called semi-precious. The difference is made primarily by the price.

Regarding this early period of mr. Škartov work as jeweler, he is however a kind of visioner and pioneer of the somewhat different approach on the mater. The ruby is a challenge to cut, since it is the second hardest mineral after the diamond, but by 2006 he had the first several gemstones called Macedonian Ruby in our store window. Interviewed on many occasions, he shared with us his amazing experience:

– *“There are certain areas in the world renown for different specific minerals, which by their exclusive form can become an image of the country in which are found such deposits. This is the case with Australian opal, Czech granát, turquoise from Arizona, agate from South America, etc.”* – explains mr. Dean Škartov. After a while his store became a famous melting pot for the gem-lovers, and the customers themselves



started to ask for more information about the different crystals and stones which we have in Macedonia. Hence, he soon came out with the old idea to promote one of our own precious, but not so-well known minerals. Mr. Škartov already had an indications and knowledge of the existence of Macedonian ruby back in the 90's. But, from pure enthusiasm to achievement and international recognition it was a long way to go. In order to achieve the needed experience and master upgrade in the gemstones expertise, jewel standars, and reaching of a higher professional assesment in cutting precious stones and crystals, he went on specialization in north Italy. There he learnt and began to profoundly understand the complex structure of the mother earth mysterious crystals and precious gemstones.

– *“The period when I came back home to Macedonia and opened the first store for minerals the government promotion-campaign “Buy Macedonian products” was going on. And in the meanwhile, as working in my office, I was often asked by my customers and friends if there was any precious minerals typical for Macedonia. Back then I somehow looked at those questions with perplexity. I thought that it is not possible for such a small country as Macedonia to have significant deposits, or, ability of exploiting the precious stones as there is in the overseas big countries,”* – cautiously said mr. Škartov, regarding the long-lasting scarcity of information about Macedonian minerals.



– *“Misinformation puts the customers in some frames, so, for every red pebble they think it is a ruby, for every green one - that it is jade, and for every blue that it is a sapphire. That is why at first I was cautious in believing that the Macedonian ruby, which has raspberry-pink to a light-pink color, will be so widely accepted or even demanded by the customers.”* – mr. Škartov reveals. – *“Then I wondered if this purely natural mineral that is found in the Prilep region is really a ruby, and if so - why it has not been exploited and*

better promoted so far?" - says Mr. Škartov, who accordingly made several analyzes of the Macedonian ruby quality and consistence in different local and world laboratories. The analysis showed that the Macedonian ruby is maybe not of the highest quality, but it is still a genuine precious ruby. Thus, slowly but inevitably it become recognized as such. The ruby is one of the four most famous and hardest gemstones in the world. Because rubies host many impurities, their clarity is evaluated by the inclusions, size, number, location, and visibility. In Macedonia we have not had a steady tradition of evaluating and processing this particular mineral so far. In the past, blacksmithing and metal making



were more common, but the production of the precious stones was largely neglected or very rudimental. Luckily, after Mr. Škartov find out and confirmed that in Macedonia we have a genuine ruby, he continued with its affirmation and further researches, social promotion and cultural implications. It was a long journey through the statal institutions, geologic layers and economic chambers of Macedonian bureaucracy. That is how with time he finally got the hard-achieved world recognition of the Macedonian ruby, and promoted it as a distinguished and genuine Macedonian brand. Mr. Škartov finally succeeded in protecting the name and brand of the Macedonian ruby in 2008. By 2009 he completed the procedure for registering it as a trademark.

Mr. Dean Škartov processes this wonderful Macedonian mineral to perfection in his laboratory. In the processing, apart from the professional experience gained in Italy, he also puts a full luggage of love in it. The ruby is usually combined with the silver filigree, but also with gold and white gold. According to his opinion as expert, Macedonia is surprisingly rich in rare minerals, which in future can make our country surprisingly attractive and even more exclusive destination for the treasure hunters. The Amazonite is yet another Macedonian stone, which should become a recognizable as alternative gemstone from Macedonia. But, that fact also requires a great amount of investment in the future researches and promotion of this hidden treasures, at home and abroad.

– *"Finally we can recognize and protect these treasures of the Macedonian nature, and after a while the world will also recognize us through these unique gemstones,"* – Mr. Škartov said. He reveals that in the past minerals have been exported as “raw materials” from Macedonia, and for decades have been offered on world stock exchanges. At that time, not much attention was paid to the export of precious minerals from Macedonia, because in the field of mining and mineralogy the satisfaction of industrial needs was

primarily. The overall awareness and promoting of the country through jewelry minerals is still largely underestimated.

– *“(However) the most amazing moment for geologists is when they find a precious or semi-precious stones. In this case the Macedonian ruby represents a unique miracle in the whole region of Europe.”* – says mr. Škartov. It originates from the metamorphic dolomites created in the Precambrian period, that is - from the beginning of the creation of our planet until 600 million years ago. These are some of the oldest known rocks, where unknown demiurge and tectonic processes shaped and gave birth of these marvels of nature. Mr. Škartov recently opened his new store for gemstones, crystals and semi-precious stones in the center of Skopje. It is one of the most frequented shops in Skopje downtown, and not only because of the weird stones...

– *“I hope that from this urban-cult spot - "Record", which was a gathering place for many generations, I will be able to spread the marvelous story of the Macedonian ruby. I would like it to reach the whole world from the heart of our city,”* – says mr. Dean Škartov.



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Ruby store “Deko”, e-mail: makedonskirubin@gmail.com

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